ml1112paper: Solve by factoring (v0)

1. Solve the equation
$$x^2 - 3x - 18 = 0$$

$$(x - 6)(x + 3) = 0$$
$$x = -3$$
$$x = 6$$

2. Solve the equation
$$x^2 - 12x + 27 = 0$$

$$(x - 3)(x - 9) = 0$$
$$x = 9$$
$$x = 3$$

3. Solve the equation
$$3x^2 - 5x - 6 = 2x^2 - 5x - 5$$

$$x^2 - 1 = 0$$
$$(x + 1)(x - 1) = 0$$
$$x = 1$$
$$x = -1$$

4. Solve the equation
$$9x^2 + 3x + 30 = 8x^2 - 7x + 5$$

$$x^2 + 10x + 25 = 0$$
$$(x + 5)(x + 5) = 0$$
$$x = -5$$
$$x = -5$$

5. Solve the equation
$$11x^2 - 82x + 35 = 0$$

$$(11x - 5)(x - 7) = 0$$
$$x = 7$$
$$x = \frac{5}{11}$$

6. Solve the equation
$$3x^2 + 4x - 32 = 0$$

$$(3x - 8)(x + 4) = 0$$
$$x = -4$$
$$x = \frac{8}{3}$$

7. Solve the equation
$$12x^2 + 38x + 32 = 7x^2 - x + 4$$

$$5x^2 + 39x + 28 = 0$$
$$(5x + 4)(x + 7) = 0$$
$$x = -7$$
$$x = \frac{-4}{5}$$

8. Solve the equation
$$4x^2 + 24x + 24 = x^2 + 5x + 4$$

$$3x^2 + 19x + 20 = 0$$
$$(3x + 4)(x + 5) = 0$$
$$x = -5$$
$$x = \frac{-4}{3}$$

2